

AMENDMENT

Unmarked Version

In the claims:

Please cancel claims 35 and 36.

Presented below are all pending claims.

1. (Three Times Amended) A method comprising:

placing an incomplete chip package into a mold formed by a first portion and a second portion, the incomplete chip package comprising a chip and a substrate electrically coupled using a flip chip process, the mold having a lower inner surface, and an upper inner surface, the upper inner surface being coated with release film, and the chip having (i) a top surface facing the substrate, (ii) a bottom surface opposite the top surface, the bottom surface butting against the upper inner surface, and (iii) one or more side surfaces between the top and bottom surfaces;

injecting a liquid resin into a runner section of the mold, the runner's upper surface including the release film disposed on the upper inner surface of the mold, and the runner's lower surface including the lower inner surface of the mold, and the resin encapsulating a significant portion of the one or more side surfaces, and filling a first gap between the top surface and the adjacent substrate; and

curing the resin.

20. (Three Times Amended) A method comprising:

placing an incomplete flip chip package into a bottom inner cavity of a bottom mold portion, the incomplete flip chip package comprising a chip and a substrate, the chip having a top surface coupled by reflowed solder bumps to an upper surface of the substrate, the chip further comprising a bottom surface opposite the top surface and one or more side surfaces between the top and bottom surfaces;

mating an upper mold portion with the lower mold portion, the upper mold portion having an upper inner cavity, including an upper inner surface which is coated with a release film, and the bottom surface of the chip butts against the upper inner surface, the lower mold portion having a lower inner surface, and the upper and bottom inner cavities forming a mold inner cavity enclosing the incomplete flip chip package, and forming a runner that has an upper portion that includes the release film coated on the upper inner surface of the upper mold portion, and a lower inner surface that includes the lower inner surface of the lower mold;

injecting a predetermined amount of a liquid resin into the mold inner cavity through the runner, the liquid resin encapsulating substantially all or the one or more side surfaces and substantially

all of the upper surface, the liquid resin further filling a gap between the top surface of the chip and an adjacent portion of the upper surface of the substrate, encapsulating the reflowed solder bumps; and

curing the liquid resin by maintaining the mold at an elevated temperature for a predetermined period of time, the elevated temperature being equal to or greater than the cure temperature of the filled liquid resin for the predetermined period of time.

33. The method of claim 1, additionally comprising separating the mold between the upper mold portion and the lower mold portion to expose a molded chip package, the upper mold portion being removed with the release film.
34. The method of claim 20, additionally comprising separating the mold between the upper mold portion and the lower mold portion to expose a molded chip package, the upper mold portion being removed with the release film.